

AMENDMENTS TO THE SPECIFICATION

Please insert in the first sentence after the title, the following new paragraph.

This application is the U.S. national phase of International Application PCT/EP2003/012236, filed November 3, 2003, claiming priority to European Patent Application 02080120.5 filed December 4, 2002, and the benefit under 35 U.S.C. 119(e) of U.S. Provisional Application No. 60/431,803, filed December 9, 2002; the disclosures of International Application PCT/EP2003/012236, European Patent Application 02080120.5 and U.S. Provisional Application No. 60/431,803, each as filed, are incorporated herein by reference.

Please replace the paragraph beginning at page 1, line 30, and ending at page 2, line 2, with the following paragraph.

More recently, in *Macromolecules* 2000, 33, 1955-1956 $\text{Me}_2\text{Si}(2\text{-Me-4,5-BzoInd})_2\text{ZrCl}_2$, $\text{Me}_2\text{Si}(2\text{-Me-4-PhInd})_2\text{ZrCl}_2$ and $\text{Me}_2\text{Si}(\text{Ind})_2\text{ZrCl}_2$ have been tested in the polymerization of 1-butene. The obtained polymers ~~posseses~~possesses molecular weights higher than the ones described in the previous documents, ~~nevertheless~~nevertheless they can be further improved; moreover the activities of these catalysts are not satisfactory, as shown in the comparative examples of the present application.

Please replace the paragraph beginning at page 19, line 1, and ending at line 20, with the following paragraph.

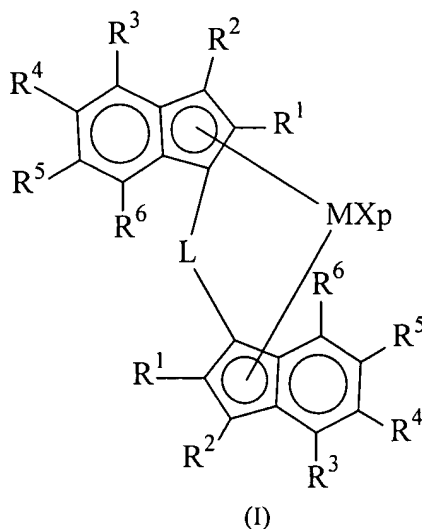
A suspension of 24.36 g of pure 2,5,5,7,7-Pentamethyl-2,3,5,6,7-pentahydro-s-indacen-1-one (100.5 mmol) in 100 ml of Ethanol was treated with 4.06 g of NaBH_4 (Aldrich 98 %, ~~105.2~~105.2 mmol) at room temperature. An opaque yellowish solution was obtained. After 4 hours stirring at room temperature, the solution was treated with 5 ml of acetone and then evaporated to dryness under reduced pressure. The yellowish gel obtained was treated with 100 ml of toluene and 40 ml of water. The two layers were separated. The aqueous layer was washed with 50 ml of toluene. The organic layer was washed with a 10 % NH_4Cl aqueous solution (2 x 30 ml), dried over Na_2SO_4 and filtered. The yellow filtrate was treated with 1.89 g of *p*-Toluenesulfonic acid monohydrate (Aldrich 98.5 %, 9.8 mmol) and heated to 80° C. Formation of water with the separation of 2 layers was observed. After 5 hours stirring at 80° C and 2 days at room

temperature, the reaction was not finished (11 % of alcohol), so the water formed was separated from the reaction mixture and 0.20 g of *p*-Toluenesulfonic acid monohydrate (Aldrich 98.5 %, 1,0 mmol) were added. After 1 hour stirring at 80° C and 16 hours at room temperature, the reaction was complete and so the mixture was treated with 50 ml of a saturated NaHCO₃ aqueous solution. The organic layer was separated, washed with a saturated NaHCO₃ aqueous solution (1 x 50 ml) and water (3 x 50 ml), dried over Na₂SO₄ and filtered. The yellow filtrate was evaporated to dryness under reduced pressure to give 20.89 g of a yellow liquid (91.8 % yield), that crystallized after few minutes. This was characterized by NMR as pure 1,1,3,3,6-Pentamethyl-1,2,3,5-tetrahydro-*s*-indacene.

Please replace the paragraph of the Abstract with following paragraph.

Abstract

A process for obtaining 1-butene polymers ~~optionally containing up to 30% by mol of ethylene, propylene or an alpha-olefin of formula CH₂=CHZ, wherein Z is a C₃-C₁₀ alkyl group s,~~ comprising the step of contacting under polymerization conditions 1-butene and optionally ethylene, propylene or said alpha-olefin, in the presence of a catalyst system obtainable by contacting: a) a metallocene compound of formula (I):



wherein: M is an atom of a transition metal belonging to group 3, 4, 5, 6 or to the lanthanide or actinide groups in the Periodic Table of the Elements; p is an integer from 0 to 3; X, is a hydrogen atom, a halogen atom, or a hydrocarbon group;

R^1 is a hydrocarbon group; R^2 , R^3 and R^6 are hydrogen atoms or hydrocarbon groups; R^4 and R^5 join to form a condensed saturated or unsaturated 4-7 membered ring; and L is a divalent bridging group; and b) an alumoxane or a compound able to form an alkylmetallocene cation.